ICT

YEAR-10

End of Term Assessment (Term 2)

19th March 2024

Duration: 60 minutes

Student Name: _____ **Section:** _____

Total:	/60

Objectives to be Assessed	Topics	Question Numbers	Marks for these Questions
AO1 - Knowledge and Understanding	Digital Devices, Software, Networks, Risks to Data and Personal Information	Q2, Q3, Q5, Q6, Q7, Q8, Q9, Q10, Q11, Q12, Q13, Q14, Q15	26 marks
AO2 - Application of Knowledge and Understanding	Digital Devices, Software, Digital Communication, Networks, Risks to Data and Personal Information	Q1, Q4, Q16, Q17, Q18, Q19, Q20	17 marks
AO3 - Analysis and Evaluation	Digital Communication, Networks, Risks to Data and Personal Information	Q4, Q10, Q16, Q20	8 marks
AO4 - Synthesis and Creativity	Digital Devices, Software, Digital Communication, Networks, Risks to Data and Personal Information	Q3, Q21, Q22	9 marks

Questions

Q1.

Letta arrives at a hotel.

The hotel network manager has administrator privileges.

(i) Explain **one** reason an administrator would use a network operating system to manage users.

(2)

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(ii) Explain **one** reason why the network manager should back up data regularly.

(2)

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(Total for question = 4 marks)

Q2.

Letta uses the Internet for work.

Letta's employer uses hosted applications and storage.

(i) Explain **one** benefit to Letta's employer of doing this.

(2)

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(ii) State the type of computer used to store online software.

(1)

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(Total for question = 3 marks)

Q3.

Kay uses the Internet to work from home.

Complete the description of a secure password.

(2)

A secure password should use a minimum of eight .... and a mixture

of .... and ....

(Total for question = 2 marks)

Q4.

Describe how a CAPTCHA test reduces the function of malware.

(2)

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(Total for question = 2 marks)

Q5.

Ruwan uses a smartwatch when he exercises.

Some data needs to be encrypted when it is transferred.

Describe how encryption helps keep data secure.

(2)

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(Total for question = 2 marks)

Q6.

Ruwan searches online for local sporting events.

Describe how MAC addresses can be used to prevent access to networks.

(3)

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(Total for question = 3 marks)

Q7.

Describe how mobile broadband can be used to provide access to cloud-based services.

(2)

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(Total for question = 2 marks)

Q8.

Describe how pharming is a risk to data.

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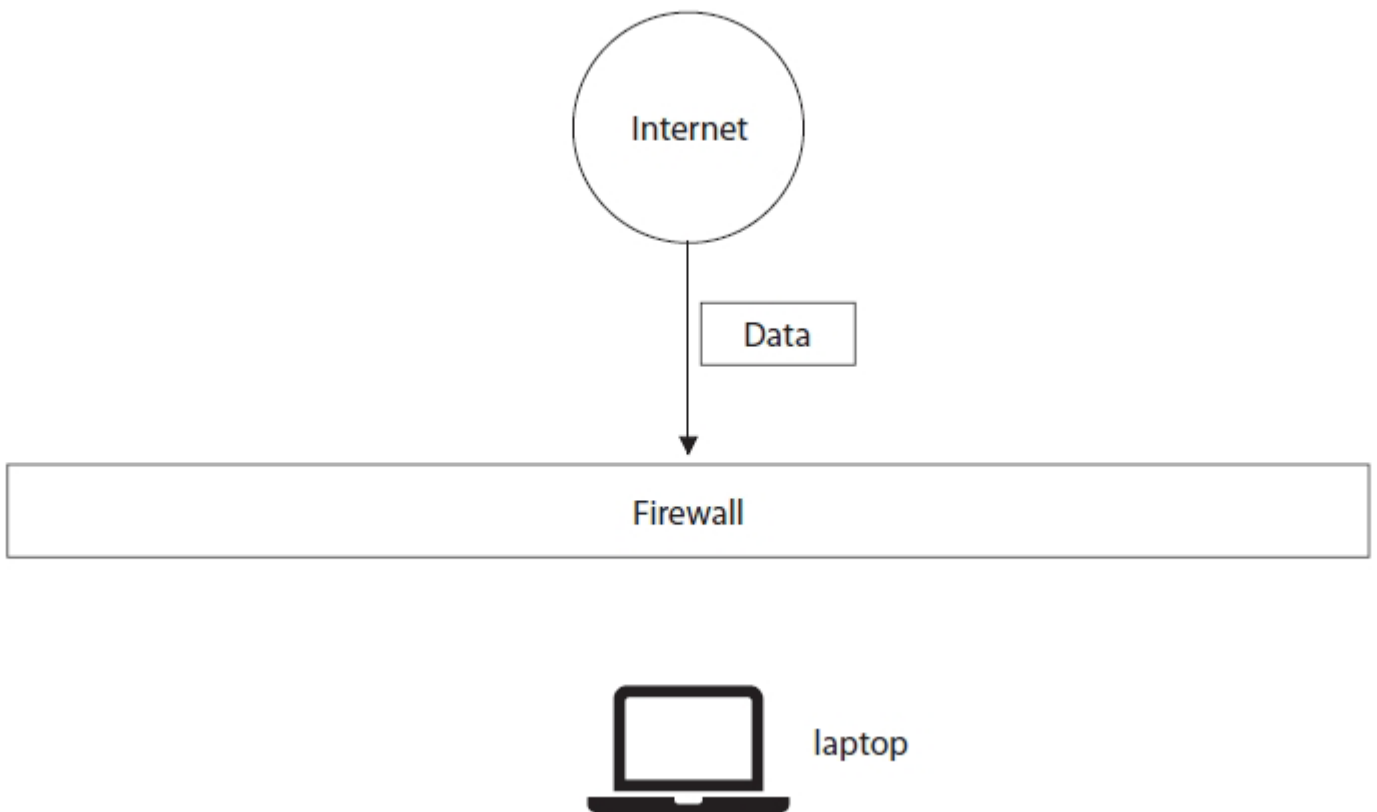
(Total for question = 2 marks)

Q9.

Kay uses the Internet to work from home.

This diagram shows data sent to a laptop.

Describe how the firewall acts on the data that has been sent to the laptop.

(2)

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(Total for question = 2 marks)

Q10.

Describe how WPA is a more secure protocol than WEP.

(2)

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(Total for question = 2 marks)

Q11.

Hugh creates a website for a band.

Describe **one** method that should be used to secure payment data transferred between Hugh's server and other computers.

(3)

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(Total for question = 3 marks)

Q12.

Hillmart Youth Centre provides a range of services and activities for young people.

The centre has a small network of PCs connected to the internet.

The centre provides an unsecured Wi-Fi connection to the network.

Jasmine often connects her tablet device to the unsecured Wi-Fi network.

Describe **one risk to Jasmine** of using an unsecured wireless network.

(3)

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(Total for question = 3 marks)

Q13.

Kiki buys a smartphone.

The smartphone has a 4 GHz CPU.

Describe the function of a CPU.

(2)

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(Total for question = 2 marks)

Q14.

Zara uses her tablet computer to watch TV online.

Describe the function of a router.

(2)

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(Total for question = 2 marks)

Q15.

Sachini plays online games on her laptop.

Describe the function of a web browser.

(2)

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(Total for question = 2 marks)

Q16.

Hugh creates a website for a band.

Describe the function of **two** network components that are used to transfer data on the Internet.

(4)

Network component ....

Function ....

 ....

 ....

Network component ....

Function ....

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 ....

(Total for question = 4 marks)

Q17.

James teaches in a school that uses a local area network and a wide area network.

The learners use communication software.

Describe the purpose of communication software.

(2)

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(Total for question = 2 marks)

Q18.

Ashan works in an office with a network.

Describe **two** benefits of using a client–server network.

(4)

Benefit 1

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Benefit 2

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(Total for question = 4 marks)

Q19.

James teaches in a school that uses a local area network and a wide area network.

Describe **two** benefits to teachers of using a local area network.

(4)

1 ....

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2 ....

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(Total for question = 4 marks)

Q20.

Zara uses her tablet computer to watch TV online.

Zara streams an online video. She sees the notice shown in **Figure 1**.

What has happened?
Your files are no longer accessible.

Can I get access to my files?
Yes. Send a payment as described below.

How long do I have?
You have 14 days to send payment.

How do I pay?
Send £500 in Bitcoin to abc123def456ghi789.

Figure 1

Describe what has happened to Zara.

(4)

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(Total for question = 4 marks)

Q21.

Kay works from home.
She uses ICT for business and entertainment.

(Source: © PAL)

Draw **one** straight line from **each** characteristic to the correct hardware.

(3)

Characteristic	Hardware

Has the largest capacity •

Stores applications
while they are in use •

Stores instructions
needed to load the
operating system •

• Compact disc

• Magnetic disk
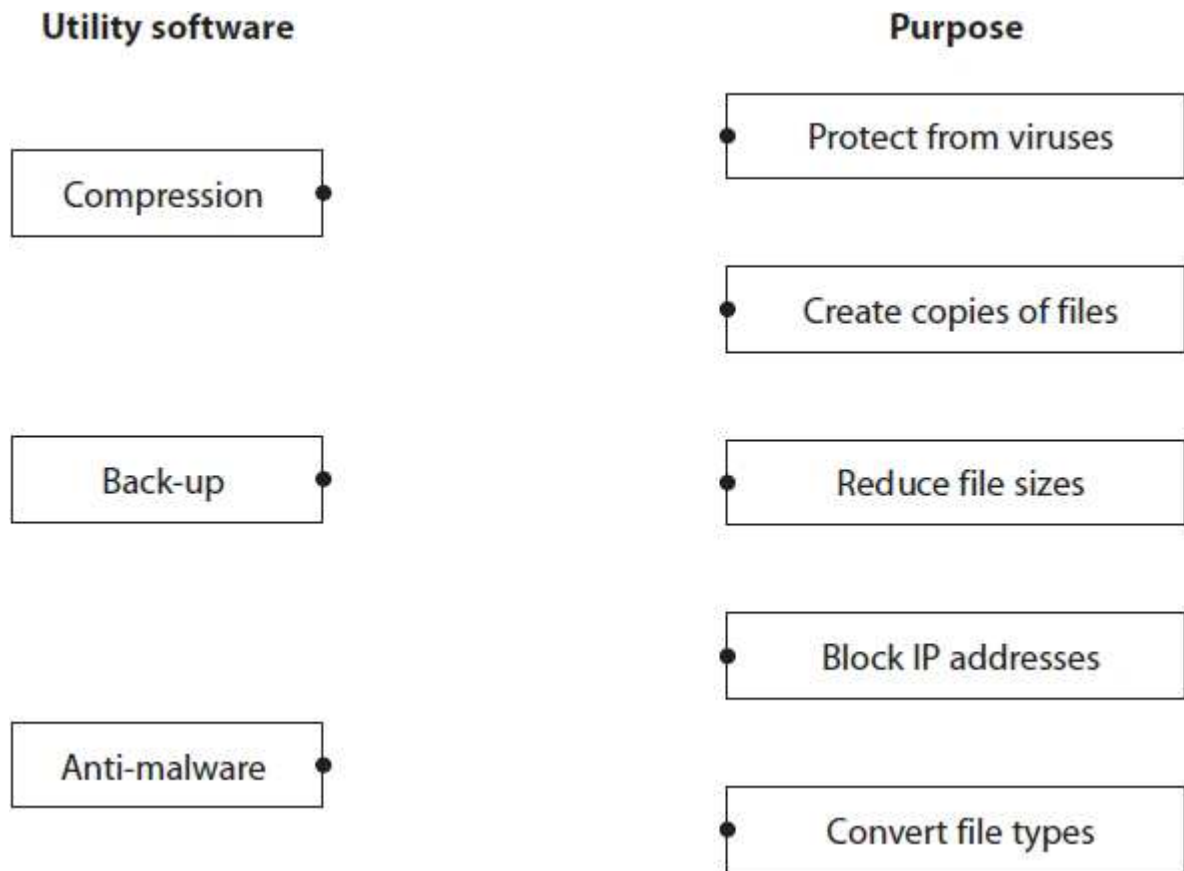
• Random access memory

• Read only memory

(Total for question = 3 marks)

Q22.

Eunice installs some software on her laptop.

Draw **one** straight line from each example of utility software to the correct purpose.

(3)

Utility software	Purpose

Compression

Back-up

Anti-malware

Protect from viruses

Create copies of files

Reduce file sizes

Block IP addresses

Convert file types

(Total for question = 3 marks)